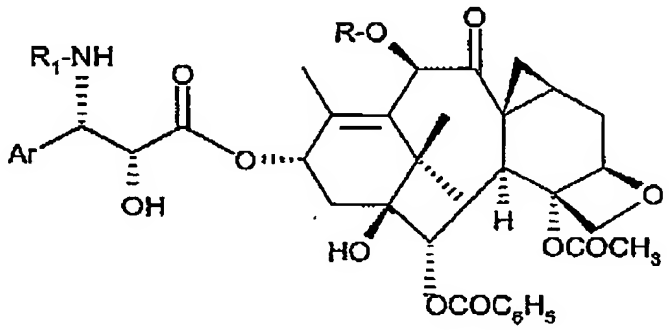
Application Ser. No.: 10/824,030
Filing Date: April 14, 2004
Examiner: Owens, Amelia A.

Amendment Pursuant to 37 C.F.R. § 1.121

IN THE CLAIMS:

The claims set forth below with amendments as indicated will replace all prior versions and listing of claims in the application.

1. (previously presented) A process for the preparation of a compound of formula (I)



(I)

wherein:

Ar is aryl;

R is hydrogen, acetyl, alkoxyacetyl or alkyl;

R_1 is benzoyl or R_2-O-CO- wherein R_2 is straight or branched C_1-C_8alkyl;

comprising contacting compound of formula (II) with a weak base, then successively or beforehand, coupling a precursor of the side chain and, deprotecting the optionally protected hydroxyl functional group, which comprises carrying out the cyclopropanation reaction in sulfolane;

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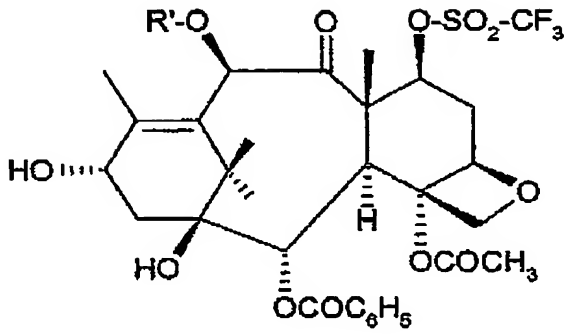

(II)

wherein R' is a protective group for the hydroxyl functional group or acetyl, alkoxyacetyl or alkyl.

2. (original) The process as set forth in claim 1, wherein R is acetyl, R_1 is tert-butoxycarbonyl and Ar is phenyl.

3. (previously presented) The process as set forth in claim 1, wherein the weak base is a molecular sieve having a pore size of 4 Å.

4. (original) The process as set forth in claim 1, wherein the reaction is carried out in the presence of 4 Å molecular sieve as activated powder.

5. (original) The process as set forth in claim 3, wherein the molecular sieve and the compound of formula (II) are present in about 1 : 1 ratio by weight.

6. (original) The process as set forth in claim 4, wherein the molecular sieve and the compound of formula (II) are present in about 1 : 1 ratio by weight.

7. (currently amended) The process as set forth in claim 1, wherein the sulfolane ~~is present~~ contains from about 2 to about 5% by weight of water.

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8. (currently amended) The process as set forth in claim 7, wherein the sulfolane ~~is present~~ contains about 4% of water.

9. (original) The process as set forth in claim 1, wherein the reaction is carried out at a temperature of from about 20°C to about the boiling point of the solvent.

10. (original) The process as set forth in claim 9, wherein the reaction temperature is about 60°C.

11. (previously presented) The process as set forth in claim 3, wherein the compound of formula (I) is isolated as a crude product by addition of ethyl acetate to the reaction medium, filtration of the molecular sieve, concentration of the reaction medium and then crystallization by addition of water.

12. (original) The process as set forth in claim 11, wherein the crude product is further purified by recrystallization from a solvent or solvent mixture chosen from methanol, a mixture of methanol and diisopropyl ether, a mixture of methanol and toluene, a mixture of sulfolane and toluene, a mixture of methylene chloride and diisopropyl ether, or a mixture of ethyl acetate and diisopropyl ether.

13. (original) The process as set forth in claim 12, wherein the crude product is purified with a mixture of ethyl acetate and isopropyl ether.

14. (original) The process as set forth in claim 13, wherein said solvent mixture is present in a ratio of approximately 25/75 v/v.

15. (previously presented) The process as set forth in claim 1, wherein the precursor of the side chain is chosen from β-phenylisoserine protected in the 2' position, oxazolidines or β-lactams.

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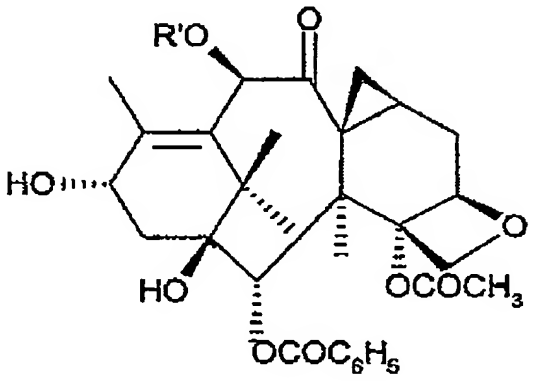
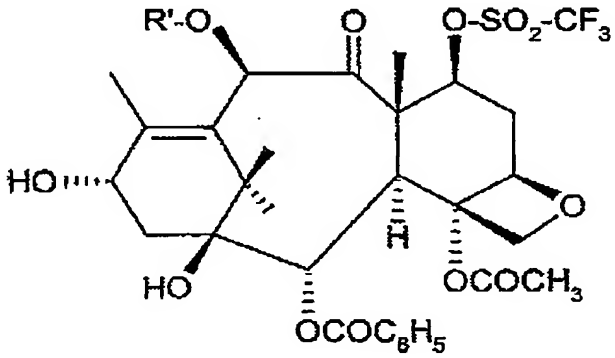
16. (previously presented) A process for the preparation of a compound of formula (III):



(III)

wherein R' is a protective group for the hydroxyl functional group or acetyl, alkoxyacetyl or alkyl;
comprising bringing a compound of general formula (II)



(II)

into contact with a 4 Å molecular sieve, which is carried out in sulfolane.

17. (original) The process as set forth in claim 16, wherein the reaction is carried out in the presence of 4 Å molecular sieve as activated powder.

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18. (currently amended) The process as set forth in claim 16, wherein the sulfolane ~~is present~~ contains from about 2 to about 5% by weight of water.

19. (currently amended) The process as set forth in claim 16, wherein the sulfolane ~~is present~~ contains about 4% of water.

20. (original) The process as set forth in claim 16, wherein the reaction is carried out at a temperature of from about 20°C to about the boiling point of the solvent.

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